Sauradip **Nag**

DEEP LEARNING RESEARCHER · SOFTWARE DEVELOPER

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Education

University of Surrey   *Guildford, United Kingdom*

DOCTORATE OF PHILOSOPHY (PhD) IN ELECTRICAL ENGINEERING   *Jul 2020 - Jul 2023 (Expected)*

- Supervisor: Prof. Tao Xiang and Prof. Yi-Zhe Song
- Thesis: Few Shot Learning and its applications in Action Localization and Detection
- Funding: iFlyTech Research Inc

Kalyani Government Engineering College   *West Bengal, India*

BACHELOR OF TECHNOLOGY (B.TECH) IN COMPUTER SCIENCE AND ENGINEERING   *Aug. 2014 - Aug 2018*

- Supervisor: Prof. Kaushik Dasgupta and Mr. Tamojit Chatterjee
- Thesis: Interacting with Softwares using Gestures
- Grade: 8.26 CGPA /10 (Among top 20 in Class)

Research and Work Experience

Indian Institute of Technology Madras   *Madras, India*

PROJECT ASSOCIATE IN VPLAB AND CAIR,DRDO   *July 2018 - July 2020*

- Supervisor : Prof. Sukehndu Das, Prof Kaushik Mitra and Prof. Balaraman Ravindran
- Project: Worked on Visual SLAM and Semantic Segmentation for IMPRINT Project of finding hidden location from scene
- Publication : Published 1 paper (top 10% paper) as first author

Indian Statistical Institute Kolkata   *Kolkata, India*

RESEARCH ASSOCIATE IN CVPR UNIT   *July 2016 - July 2018*

- Supervisor : Prof. Umapada Pal and Prof. Paliahnakhote Shivakumara
- Project: Worked on Video Scene Text Detection and Handwritten Document Analysis
- Publication : Published 3 papers (2 conference + 1 journal) all as first author

GISCLE Systems   *Bangalore, India*

COMPUTER VISION INTERN   *Jan 2018 - April 2018*

- Collaborator : Heba Tallah Maghoub
- Project: Worked on Advance Lane Detection System for Autonomous Cars in India
- Contribution : Developed Lane Detection System using Deep Learning, Object Detection Module for Drivers

Apnastudy Technologies Inc   *Kolkata, India*

SOFTWARE DEVELOPER INTERN   *Feb 2016 - June 2017*

- Collaborator : Shibaji Ray, Soumya Kundu, Dipendu Das
- Project: Worked on Artificial Intelligence based Learning Management Systems for Online Classes
- Contribution : Contributed in the website (apnastudy.com) UI and integrated Node.js Backend with the Angular.js Frontend

Research Interest

Few Shot Learning	Transductive, Inductive, Zero-Shot, Generalized, Incremental/Continual and LifeLong Learning
Computer Vision	Action Recognition and Localization, Semantic Segmentation, Video Summarization, Future Prediction
Multi-Modal Learning	Video, Audio, Text/Caption, Image and its intermediate representation to solve low-level tasks
Other Interests	Self-Supervised, Unsupervised and Weakly-Supervised Learning, Knowledge Distillation, Reinforcement Learning

Selected Publication(s)

Simple and Efficient Temporal Action Detection   *Under Submission*

NEURAL INFORMATION PROCESSING SYSTEMS (NeurIPS), VIRTUAL   *May 2021*

- Authors : **Sauradip Nag**, Xiatian Zhu, Yi-Zhe Song, Tao Xiang

Few-Shot Temporal Action Localization with Query Adaptive Transformer   *Under Submission*

IEEE INTERNATIONAL CONFERENCE OF COMPUTER VISION (ICCV), MONTREAL   *March 2021*

- Authors : **Sauradip Nag**, Xiatian Zhu, Yi-Zhe Song, Tao Xiang

A New Unified Method for Detecting Text from Sports Players in Video *Impact Factor: 7.19*

Pattern Recognition (PR), Elsevier *April 2020*

- Authors : **Sauradip Nag**, P Shivakumara, U Pal, T Lu, M Blumenstein

CRNN based Jersey-Bib Number/Text Recognition in Sports and Marathon Images *H5-Index: 26*

International Conference on Document Analysis and Recognition (ICDAR), Sydney *June 2019*

- Authors : **Sauradip Nag**, R Ramachandra, P Shivakumara, U Pal, T Lu, M Kankanhalli

What's There in the Dark *H5-Index: 45*

IEEE International Conference on Image Processing (ICIP), Taipei *Jan 2019*

- Authors : **Sauradip Nag**, S Adak, S Das

Facial Micro-Expression Recognition using Time Contrasted Feature with Visual Memory *H5-Index: 80*

IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Brighton *Jan 2019*

- Authors : **Sauradip Nag**, A Bhunia, A Konwer, P P Roy

Skills

Programming	C, Python, MATLAB, R, Java (J2SE, J2EE, J2ME), Javascript, HTML, CSS
Deep Learning	Tensorflow, PyTorch, Keras
Frameworks	Node.js, Angular.js,, Express.js, Twilio, Bootstrap
IDE	LaTex, VisualStudio, PyCharm, MATLABStudio, RStudio, Atom

Courses Undertaken

Undergraduate Level	Datastructures, Database, Compiler Design, Artificial Intelligence, Networks, Operating Systems, Automata
Graduate Level	Advanced Datastructures and Algorithms, Computer Vision, Advanced Deep Learning

Honors & Awards

International

2020	**PhD Scholarship**, Awarded by IFLYTek Research Inc and University of Surrey	*United Kingdom*
2019	**Top 10% Award**, Awarded for my paper "What's There in the Dark"	*Taiwan*

Domestic

2018	**Rank 71**, Rakuten Deep Learning Challenge	*India*
2018	**GATE CSE-2018**, Ranked among top 5% candidates out of 1,07,893 Candidates	*India*
2018	**Finalist**, Smart India Hackathon ISRO Theme organized by Government of India	*India*
2016	**Rank 2924**, Codechef October Long Challenge	*India*
2015	**Rank 1803**, Codechef September Mega Cook Off	*India*

Professional Activity

2020	**Reviewer**, Springer Nature Computer Science Journal	*UK Zone*

Conferences/Worskhops Attended

2019	**Participant**, International Conference in Image Processing (ICIP)	*Taipei,Taiwan*
2019	**Atendee**, Advances in Robotics (AIR)	*IIT Madras*
2019	**Atendee**, International Workshop on Pattern Analysis and Applications (IWPAA)	*ISI, Kolkata*
2019	**Atendee**, Workshop on Machine Intelligence and Brain Research (CCBR)	*IIT Madras*
2018	**Atendee**, Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP)	*IIIT Hyderabad*

Extracurricular Activity

2020	**Surrey Buddy**, Assist International students affected by Covid by bringing them essentials and testing kit	
2008	**Painting**, Completed 3rd Year of Professional Painting with Distinction	
2009	**Quiz**, Winner of Cheetos School Quiz Competition	